

[FIG.1]

100 BASE STATION APPARATUS

RECEIVED SIGNAL

TRANSMISSION SIGNAL

5 104 RECEIVED SIGNAL DEMODULATION SECTION

105 SCHEDULER SECTION

106 TRANSMISSION SIGNAL GENERATION SECTION

107 DIRECTIVITY SWITCHING INSTRUCTION SECTION

103 DIRECTIVITY CONTROL SECTION

10 102-1 RECEPTION RF SECTION

102-n RECEPTION RF SECTION

108-1 TRANSMISSION RF SECTION

108-n TRANSMISSION RF SECTION

15 [FIG.2]

200 TERMINAL APPARATUS

RECEIVED SIGNAL

TRANSMISSION SIGNAL

203 RECEIVED SIGNAL DEMODULATION SECTION

20 204 SIR MEASURING ,SECTION

205 TRANSMISSION SIGNAL GENERATION SECTION

202 RECEPTION RF SECTION

206 TRANSMISSION RF SECTION

25 [FIG.3]

FROM DIRECTIVITY CONTROL SECTION 103

301 TIMER

302 DIRECTIVITY SWITCHING INSTRUCTION SIGNAL

GENERATION SECTION
TO DIRECTIVITY CONTROL SECTION 103

[FIG. 4]

5 START
ST401 PREPARE FOR REPETITION AS MANY TIMES AS
DIRECTIVITIES
ST1402 TRANSMIT REFERENCE SIGNAL WITH DIRECTIVITY N
ST1403 RECEIVE SIR MEASUREMENT RESULT
10 ST1404 TRANSMIT CHANNEL USING ADAPTIVE MODULATION WITH
DIRECTIVITY N
ST1405 ELAPSED PREDETERMINED TIME?
ST1406 REPEATE AS MANY TIMES AS DIRECTIVITIES
END

15

[FIG. 6]

RECEIVED SIGNAL
600 BASE STATION APPARATUS
601 DIRECTIVITY SWITCHING SIGNAL GENERATION SECTION
20 TRANSMISSION SIGNAL
104 RECEIVED SIGNAL DEMODULATION SECTION
105 SCHEDULER SECTION
106 TRANSMISSION SIGNAL GENERATION SECTION
602 DIRECTIVITY SWITCHING INSTRUCTION SECTION
25 103 DIRECTIVITY CONTROL SECTION
102-1 RECEPTION RF SECTION
102-n RECEPTION RF SECTION
108-1 TRANSMISSION RF SECTION

108-n TRANSMISSION RF SECTION

[FIG.7]

RECEIVED SIGNAL

- 5 700 TERMINAL APPARATUS
- 701 DIRECTIVITY SWITCHING DECISION SECTION
- 203 RECEIVED SIGNAL DEMODULATION SECTION
- 204 SIR MEASURING SECTION
- 205 TRANSMISSION SIGNAL GENERATION SECTION
- 10 TRANSMISSION SIGNAL
- 202 RECEPTION RF SECTION
- 206 TRANSMISSION RF SECTION

[FIG.8]

- 15 TO DIRECTIVITY CONTROL SECTION 103
- 801 DIRECTIVITY SWITCHING TIMING DETERMINING SECTION
- 802 DIRECTIVITY SWITCHING SIGNAL INSERTION TIMING
- DETERMINING SECTION
- FROM DIRECTIVITY CONTROL SECTION 103
- 20 TO DIRECTIVITY SWITCHING SIGNAL GENERATION SECTION 601

[FIG.9]

START

- ST901 DEMODULATE RECEIVED SIGNAL
- 25 ST902 DIRECTIVITY SWITCHING SIGNAL INCLUDED?
- ST903 SIR OUTPUT
- ST904 SIR DISABLED
- ST905 TRANSMIT TRANSMISSION SIGNAL

END

[FIG.10]

DIRECTIVITY SWITCHING SIGNAL

5 SLOT #1

DIRECTIVITY SWITCHING SLOT

1 SLOT

1 SLOT

10 [FIG.11]

RECEIVED SIGNAL

1100 BASE STATION APPARATUS

1102 DIRECTIVITY NUMBER INFORMATION GENERATION SECTION

1101 DIRECTIVITY SWITCHING SIGNAL GENERATION SECTION

15 104 RECEIVED SIGNAL DEMODULATION SECTION

105 SCHEDULER SECTION

106 TRANSMISSION SIGNAL GENERATION SECTION

1103 DIRECTIVITY SWITCHING INSTRUCTION SECTION

TRANSMISSION SIGNAL

20 DIRECTIVITY INFORMATION

103 DIRECTIVITY CONTROL SECTION

102-1 RECEPTION RF SECTION

102-n RECEPTION RF SECTION

108-1 TRANSMISSION RF SECTION

25 108-n TRANSMISSION RF SECTION

[FIG.12]

RECEIVED SIGNAL

1200 TERMINAL APPARATUS
 1201 DIRECTIVITY SWITCHING DECISION SECTION
 1202 DIRECTIVITY NUMBER INFORMATION DECISION SECTION
 203 RECEIVED SIGNAL DEMODULATION SECTION
 5 204 SIR MEASURING SECTION
 205 TRANSMISSION SIGNAL GENERATION SECTION
 TRANSMISSION SIGNAL
 202 RECEPTION RF SECTION
 206 TRANSMISSION RF SECTION

10

[FIG.13]

TO DIRECTIVITY CONTROL SECTION 103

1301 DIRECTIVITY SWITCHING TIMING DETERMINING SECTION

1303 DIRECTIVITY NUMBER INFORMATION INSERTION TIMING

15 DETERMINING SECTION

1302 DIRECTIVITY SWITCHING SIGNAL INSERTION TIMING
 DETERMINING SECTION

TO DIRECTIVITY NUMBER INFORMATION GENERATION SECTION 1102

TO DIRECTIVITY SWITCHING SIGNAL GENERATION SECTION 1101

20 FROM DIRECTIVITY CONTROL SECTION 103

[FIG.14]

FROM DIRECTIVITY SWITCHING DECISION SECTION 1201

1401 DIRECTIVITY NUMBER INFORMATION EXTRACTION SECTION

25 1403 STORAGE SECTION

1402 QUALITY VARIATION CALCULATION SECTION

TO SIR MEASURING SECTION 204

FROM RECEIVED SIGNAL DEMODULATION SECTION 203

[FIG.15]

START

ST1501 DEMODULATE RECEIVED SIGNAL

5 ST1502 DIRECTIVITY SWITCHING SIGNAL INCLUDED?

ST1503 MEASURE SIR FROM REFERENCE SIGNAL

ST1504 MEASURE SIR FROM DIRECTIVITY NUMBER INFORMATION

ST1505 SIR OUTPUT

ST1506 TRANSMIT TRANSMISSION SIGNAL

10 END